

***Ex Parte* Presentation**
WT Docket No. 99-328
Petition for Declaratory Ruling on 911
Call Processing Modes

Sanyo Electric Co., Ltd., Samsung Telecommunications
America, LLP, Ericsson Inc, Sony Ericsson Mobile
Communications Inc., and Toshiba Corporation

April 2, 2004

Overview

- The *Second Report and Order*, and the industry's implementation thereof, have greatly benefited the public
- The Commission's intent was to improve E911 call processing quickly
- The 17-second requirement addressed lengthy call set-up times
- Subsequent Bureau interpretations are consistent with the *Second Report and Order* and consistent with the manufacturers' understanding of call completion
- WCA's interpretation of call completion is inconsistent with the *Second Report and Order* and the FCC-adopted analog standard, and would require the Commission to include base station manufacturers and service operators

Benefits of the Second Report and Order

**The *Second Report and Order*, and the Industry's
Implementation Thereof, Have Greatly Benefited the Public**

- Before the *Second Report and Order*, 911 calls used only the A or B carrier, not both
 - If a user made a 911 call, and its preferred carrier was on the A system, the handset would never seek to place the call on the B system, even if there was no signal on the A system

Benefits of the *Second Report and Order*

- Handsets generally did not switch to the non-preferred carrier's system during a 911 call attempt if there was no signal on the preferred carrier's system. *Now they do.*
- Handsets generally did not switch to the non-preferred carrier's system during a 911 call attempt if there was a signal on the preferred carrier's system but the call could not be completed (i.e., Conversation State could not be reached). *Now they do.*
- Handsets generally did not incorporate separate programming for 911 calls. Users had to choose either incurring roaming charges for non-911 calls or never switching to the non-preferred provider's system for a 911 call. *Now handsets seamlessly switch to the other system at no charge if the 911 call is not completed with the preferred carrier.*
- Handsets generally did not provide effective feedback during a 911 call attempt. *Now they do.*

Benefits of the *Second Report and Order*

- The A/B-IR method as proposed would have permitted three scans of the preferred system before seeking to complete the 911 call with the non-preferred system, which could result in call-set up times of 48 seconds or longer
- As a result of the requirements of the *Second Report and Order*, this is not permitted, thereby greatly reducing call set-up times

Under WCA's Interpretation, These Benefits Would Not Have Been Implemented Quickly

- The FCC:
 - Sought to impose rules that could be implemented quickly
 - Sought improvements that would require “only modest changes in handset software that should not be unduly expensive and...not take long to incorporate into mobile units” (*Second Report and Order*, ¶ 35)
 - Never stated that it was imposing rules that would require third party actions
- WCA's interpretation is inconsistent with FCC's intent
 - It would require substantial changes in handsets, base stations, and wireless network equipment that would be expensive, require significant coordination, and take time to incorporate in units and equipment
 - It would require substantial changes to the analog standard, which would take several years to process

Purpose and Intent of 17-Second Condition

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- The Commission imposed the 17-second condition to address a significant disadvantage of A/B-IR as proposed – namely, that call set up times would be too lengthy and a caller may hang up on a call that otherwise would eventually have been completed

Purpose and Intent of the 17-Second Condition: Eliminate Lengthy Call Set-Up Times

- The FCC:
 - Recognized that a caller hanging up on a call because of overly lengthy call set-up times was a type of lock-in, if the call otherwise would eventually have been completed
 - Stated in the *Second Report and Order* that it imposed the 17-second condition to address this “problem”
 - Stated that it imposed the 17-second condition to minimize the possibility that callers would terminate 911 calls that would have eventually been completed

Purpose and Intent of the 17-Second Condition: Eliminate Lengthy Call Set-Up Times

- *Paragraph 36:* A significant disadvantage of A/B-IR as proposed “involves the length of call-set up times”
- *Paragraph 37:* “[W]e remain concerned that the A/B-IR approach proposed could result in excessively long call set-up times”
- *Paragraph 38:* The proponents of A/B-IR indicate that the duration of call-set up times can be adjusted and reduced in several ways, most obviously by limiting the number of scans of the preferred carrier’s control channels to one or two attempts prior to trying to place the call with the non-preferred carrier
- *Paragraph 39:* “Based on this record, we find it appropriate to require that Automatic A/B Roaming-IR meet two conditions to address this problem”
- *Paragraph 40:* Lengthy call set-up times could lead “callers to terminate 911 calls that eventually would have been completed.” To “minimize this possibility . . . a time limit should be placed on the initial attempt to set-up the call with the preferred carrier”

Bureau Interpretations

Nokia Consent Decree

- Nokia notified the FCC that:
 - Nokia's Model 6385 multi-mode handsets may not always have met the 17-second condition
 - To ensure that these handsets comply with the 17-second condition, Nokia
 - Developed revised software
 - Installed such software in all Model 6385 handsets in the U.S. distribution chain
 - Provided notification to end users of Model 6385 handsets that such revised software is available at no cost to the user

Nokia Consent Decree

- Required Nokia to train employees to ensure compliance with 17-second condition
- Compliance program to be based on principles set forth in May 27, 2003 Nokia letter to WTB (see fn 7 of Consent Decree, fn 10 of Compliance Program), which letter states:
 - A call is considered to be completed when the handset receives a voice or traffic channel assignment
 - The handset must seek to make the call on another network only if the handset does not receive a voice or traffic channel assignment within 17 seconds
- Conclusion: Consent Decree required Nokia to train its employees to design the software to require that the handset make a call on another network only if the handset does not receive a voice or traffic channel assignment within 17-seconds

May 27, 2003 Nokia Letter to WTB

- Nokia considers a call to be completed when the handset receives a voice or traffic channel assignment
 - In other words, an “access attempt” is successfully completed when the handset receives a voice or traffic channel assignment, and if the access attempt is not successful within 17 seconds (*i.e.*, if the handset does not receive a voice or traffic channel assignment within 17 seconds), the handset will seek to make the call on another network
- Nokia requests from the WTB confirmation that Nokia’s understanding of the 17-second condition is accurate
 - Nokia informed the WTB that Nokia was requesting this clarification because it was preparing a training program intended to focus on these requirements, and Nokia wanted to ensure that its training program accurately reflects the requirements

May 30, 2003 WTB Letter to Nokia

- The 17-second condition means that if the access attempts are not successful within 17 seconds, handset must attempt the call on another network
- “[A]ccess attempts are deemed unsuccessful if the handset has not received a voice or traffic channel assignment within 17 seconds”
- Conclusion: May 30 WTB Letter confirms that Nokia’s understanding of the 17-second condition is accurate
 - Consent Decree stated that the core principles of the training that Nokia must provide to its organizations relating to the 17 second condition were presented to WTB in the Nokia May 27 Letter and **approved** in the May 30 WTB Letter

Aug. 13, 2003 Ericsson Letter to WTB

- Requested confirmation that for Ericsson, “call completion ... occurs when a voice or traffic channel is assigned, and an access attempt is deemed unsuccessful if no such assignment has occurred within 17 seconds”
- Stated that the WTB had recently confirmed in its May 30 Bureau Letter that call completion occurs when a voice or traffic channel is assigned

Sept. 24, 2003 WTB Letter to Ericsson

- Confirmed that Ericsson's understanding is correct
- “Similar to Nokia's method, the Bureau approved Ericsson's method with the understanding that access attempts are deemed unsuccessful if the handset has not received a voice or traffic channel assignment within a maximum of 17 seconds and that the access attempts must not exceed 17 seconds . . . before the handset attempts to call on another network”
 - If the WTB had disagreed with Ericsson's interpretation it would have characterized as incorrect Ericsson's representation that the Bureau had found in its letter to Nokia that call completion occurs when a voice or traffic channel is assigned

The Bureau Interpretations Clearly Support the Manufacturers' Understanding of Call Completion

- WCA wrongly asserts that the Bureau interpretations are irrelevant because, according to WCA, the *Second Report and Order* unambiguously supports WCA's position
 - The Bureaus would not have agreed with the Handset Manufacturers' interpretation of the 17-second condition if the *Second Report and Order* was unambiguous and dictated that WCA's interpretation of the 17-second condition was correct
 - The federal court that referred this case to the FCC expressly rejected WCA's argument that the sentences on which WCA relies unambiguously support WCA's position and, in fact "muddy the waters"
 - The *Second Report and Order* viewed in its entirety clearly supports the manufacturers' position
 - WCA cannot contend that the *Second Report and Order* is unambiguous when WCA keeps changing its interpretation

**Given the Bureau Interpretations, a Finding Contrary to the
Manufacturers Would Violate APA and Be Directly
Contrary to Principles of Fairness and the Public Interest**

- A regulation violates the APA and is inconsistent with principles of fundamental fairness and contrary to the public interest where the parties impacted by the law have not been given ample notice of its requirements
- WTB interprets the 17-second condition in the same manner as the manufacturers
- A contrary interpretation by the Commission would be inequitable and unenforceable
 - Such an interpretation would mean that the *Second Report and Order* was so unclear that even the WTB (the Bureau responsible for regulating handset manufacturers) misinterpreted it; if it were so unclear, there could not have been reasonable notice of the requirements to allow compliance

WCA's Interpretation of Call Completion

WCA's Interpretation is Inconsistent With the FCC's Order

- According to WCA, the *Second Report and Order* requires that if a 911 call cannot be delivered to the base station within 17 seconds, the handset must retry the call on non-preferred carrier
- This interpretation is wrong because it is inconsistent with:
 - The technical limitations of handsets
 - The applicable analog handset transmission standard
 - The FCC's focus (and imposition of mandates) only on mobile handset manufacturers in its collaborative rulemaking process, not on base station owners and service providers

WCA's Interpretation is Inconsistent with the Capabilities of Analog Handsets

- After the analog handset attains a voice channel for the call, the call proceeds through a number of different entities within the wireless network before it is completed
- For handset to know that call had reached the base station within 17 seconds, among other things, it would have to run a timer to events outside the scope of tasks it performed (e.g., to time when the base station had received a voice transmission or when the base station determined that radio links had been established)
- Neither the handset nor other elements of the network had this capability
 - The handset did not have a master timer that was synchronized with other entities in the network
 - No other entities in the network had timers that were synchronized with the handset
 - No other entities had messaging or signaling processes that informed the handset that they had completed a task within a defined time
- Conclusion: WCA's interpretation is inconsistent with the mobile handset's capabilities and the capabilities of the other entities within the system

The SAT Made No Difference

- WCA claims that use of the base station fade timer and SAT functionality would have enabled the mobile to know whether the base station had received the voice transmission within 17 seconds
- WCA's claim is inconsistent with the analog standard, inaccurate, and not realistic
 - The analog standard does not impose a five-second limit on the base station fade timer. No such provision exists and is it not implied by “reserving” a section
 - The presence of SAT is not an effective proxy to determine the adequacy of a voice transmission
 - These actions could not reasonably be completed within the 17-second time limit imposed

WCA's Interpretation Would Have Required Major Changes to the Analog Standard

- The standard considered the call complete from the mobile point of view when it attained a voice channel and reached conversation state
- The standard did not require the mobile to initiate or respond to any other processes associated with call setup after that time
- The Bulletin issued to implement the *Second Report and Order* did not add any new voice quality or signal monitoring requirements that would have enabled the handset to know more about events beyond its control

WCA's Interpretation Would Have Required Inclusion of Base Station Manufacturers and Service Providers

- The FCC focused on workable solutions that mobile manufacturers could accomplish expeditiously
 - Mobile manufacturers were sole industry focus
 - Consistent with this process, the FCC adopted new requirements for mobile handsets only
- Under WCA's interpretation, FCC would have had to impose requirements on base station manufacturers and service providers to set timers synchronized with mobile timers, to coordinate actions with other entities, and to adopt signaling and messaging processes
- If these issues were indeed on the table, the FCC would have included base station manufacturers and service providers in the collaborative process and subsequent mandates
 - Since the FCC took no such action, it could not have intended to impose such substantial new mandates on third parties

Conclusion

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